## REMARKS

## INTRODUCTION:

In accordance with the foregoing, claim 1 has been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 2, 7-9, 11-12, and 15-19 are under consideration. Claims 3-6, 13 and 14 are withdrawn. Reconsideration is respectfully requested.

## **REJECTION UNDER 35 U.S.C. §103:**

In the Office Action, at pages 2-4, claims 1, 2, 7-9, 11, 12 and 15-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over JP06234911 in view of JP11080535 or EP1148097 optionally in further view of the Concise Encyclopedia of Polymer Science of Polymer Science and Engineering. The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Claim 1 has been amended for clarity to recite that the vinyl content of the copolymers is determined before hydrogenation. This amendment is supported, for example, by paragraphs [0044]-[0045].

On May 28, 2008, Examiner Buttner kindly granted the Applicants a personal interview to discuss the application. The Examiner's time in preparing for and conducting the interview is acknowledged and gratefully appreciated.

During the interview there was a discussion regarding why the primary reference does not suggest at least claimed component (C), a hydrogenated product of an aromatic vinyl isoprene block copolymer having isoprene blocks with a total amount of 1,2- and 3,4-vinyl bonds of 35% or more. Specifically applicants presented an excerpt from the Japanese Kuraray website. The underlined portion of the Japanese website, when translated to English, states "excellent low temperature properties (elastomer portion TG: about -50° C)." Applicants reviewed with the Examiner why a glass transition temperature of -50° C translates into a lower 1,2- and 3,4-vinyl content than that claimed.

Applicants also reviewed copolymer number 6 of EP 0649873 ('873), which was published by Kurary, the manufacture of the Septon products, with the Examiner. Claimed component (C) requires isoprene. Copolymer number 6 relates to isoprene. Copolymer number 6 has a glass transition temperature of -58° C. Table 3 of EP '873 shows that copolymer number

Docket No. 1843.1002

Ser. No. 10/521,733

6 has a 1,4 content of 92%. This means that the total amount of 1,2 and 3,4 vinyl bonds is 8%, less than that required by the claims.

Although butadiene is somewhat similar to isoprene, there are significant differences regarding the glass transition temperature. These differences may be explained from the differences of the side chain, which can be seen below.

When the vinyl content is low (i.e., the 1,4-bond content is high), the molecular structure is closer to polyethylene structure, as can be seen from the above, which facilitates molecular motion, thus lowering the Tg (the Tg of polyethylene is about -120°C). Also, it should be noted, upon comparing the structure of butadiene and isoprene, isoprene has an additional methyl in a side chain, which restricts molecular motion, so that the Tg of isoprene is higher than that of butadiene. Because claimed component (C) requires isoprene and because of the differences in the glass transition temperature, it is important that comparisons are based on isoprene, not butadiene.

Enclosed herewith is a Declaration under 37 CFR 1.132 by Mr. Takeshi Fujisawa, the first-named inventor of the present application, that sets forth experimental results that support the importance of the vinyl content of the present invention.

The primary reference cited by the Examiner uses Septon 4055. Both Septon 4055 and Septon 2004 have a low vinyl content as shown from their glass transition temperature in the website and the other evidence discussed previously. HTR-3 is used as component (C) in Example 1. Septon 2004 was used in Experiment 1 in an effort to match all properties of HTR-3

Docket No. 1843.1002

except for the vinyl content. That is, Septon 2004 is closer to HTR-3 than SEPS4055 for at least two reasons. First, according to the grade list of SEPTON products set forth at http://www.septon.info/en/septon/qualitychart.html, the 4055 product is classified as "SEEPS", whereas the 2004 product is classified as "SEPS". Since the claimed copolymer (C) comprises isoprene blocks, SEPS is closer to the claimed copolymer (C). Secondly, the styrene content of the 4055 product is 30%, whereas the styrene content of the 2004 product is 18%, which is closer to the vinyl content (20%) of HTR-3. By comparing components that have different vinyl content, but are otherwise similar, it is possible to see the relevance of the vinyl content.

Attachment 1 shows that when the vinyl content is within the claimed range, superior characteristics and chemical resistance are achieved. The primary reference uses a lower vinyl content. The secondary references do not suggest using a higher vinyl content.

In addition, it appears that the Examiner may be taking the position that the effect given by the high vinyl content set forth in EP '097 may be directly applicable to the present application. It is respectfully submitted that EP '097 teaches that it is preferable for the elastomer in the polyolefin-based resin composition of EP '097 to have a high vinyl content to provide impact resistance.

In contrast, the formulation of the present application (see the combination of components (A), (B) and (C) in claim 1) provides a resin composition which is highly suitable for injection molding and has high chemical resistance. Thus, the formulation of the present application provides a molded article that has an excellent appearance and is chemically resilient even when thin walls are utilized.

In the present formulation, component (C) is a hydrogenated product of an aromatic vinyl-isoprene block copolymer having a low vinyl content. As is set forth on page 11, the first paragraph, of the specification, a PPE resin is blended with component (C) to improve chemical resistance, and compound (B), which is a hydrogenated product of an aromatic vinyl-conjugated diene block copolymer having a high vinyl content, is added to enhance compatibility. It is respectfully submitted that the effects obtained by the present application cannot be attained when compound (A) is blended with either one of components (B) or (C) only, or when either one of components (B) or (C) falls outside the scope of the present application. In addition, EP '097 does not teach the formulation recited for the present application.

Similarly, although JP '535 discloses that the vinyl content of the styrene-based elastomer that is blended with a PPE-based resin is high to provide damping, JP '535 does not

teach the formulation of the present application and does not produce the effects of the present application.

Hence, JP06234911, even if combined with JP11080535 (JP '535) or EP1148097 (EP '097) optionally in further view of the Concise Encyclopedia of Polymer Science of Polymer Science and Engineering, does not teach or suggest amended independent claim 1 of the present application.

Thus, amended independent claim 1 is submitted to be patentable under 35 U.S.C. §103(a) over JP06234911 in view of JP11080535 or EP1148097 optionally in further view of the Concise Encyclopedia of Polymer Science of Polymer Science and Engineering, alone or in combination. Since claims 2, 7-9, 11, 12 and 15-19 depend from amended independent claim 1, directly or indirectly, claims 2, 7-9, 11, 12 and 15-19 are patentable under 35 U.S.C. §103(a) over JP06234911 in view of JP11080535 or EP1148097 optionally in further view of the Concise Encyclopedia of Polymer Science of Polymer Science and Engineering, alone or in combination, for at least the reasons amended independent claim 1 is patentable under 35 U.S.C. §103(a) over same.

Withdrawal of these rejections and allowance of all pending claims are respectfully requested.

## **CONCLUSION:**

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date:\_*\_////\_O///* 

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